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LIST OF ABBREVIATIONS

A ₄₉₀	absorbance at 490 nm
ASTM	American Society for Testing and Materials
ATCC	American Type Culture Collection (nassas, VA, USA)
ANOVA	analysis of variance
BOD	biochemical oxygen demand
Y _{X/S}	biomass yield coefficient on substrate
COD	chemical oxygen demand
CCD	central composite design
DOE	design of experiment
R ²	coefficient of determination
β ₀	constant value
cm ³	cubic centimeter
CCM	Czech Collection of Microorganisms (Masaryk University, Brno, Czech Republic)
°Bx	degree brix
°C	degree centigrade and celsius
df	degree of freedom
DCW	dry cell weight
DSM	DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Braunschweig, Germany.
GC	gas chromatography
GPa	gigapascals
T _g	glass transition temperature
g	gram (s)
HPLC	high performance liquid chromatography
hr	hour (s)
HA	hydroxyalkanoic acid
x _i , x _j	independent variables

LIST OF ABBREVIATIONS (Cont.)

β_{ij}	interaction coefficient
ISO	International Standardization and Organization
β_i	linear regression coefficient
LPS	lipopolysaccharide
L	litre (s)
MPa	megapascals
T_m	melting point temperature
μg	microgram (s)
μL	microlitre (s)
mL	millilitre (s)
min	minute (s)
M_w	molecular weight
n_c	multiple center points
N	number of experiment
k	number of input factors
nm	nanometer
OD	optical density
%	percentage
cm^{-3}	per cubic centimeter
d^{-1}	per day
h^{-1}	per hour
m^{-2}	per square meter
atm^{-1}	per the standard atmosphere (unit)
PHAs	polyhydroxyalkanoates
PHB	polyhydroxybutyrate
P4HB	poly(4-hydroxybutyrate)
PHBHHx	poly(hydroxybutyrate-co-hydroxyhexanoate)
PHBV	poly(hydroxybutyrate-co-valerate)

LIST OF ABBREVIATIONS (Cont.)

PE	polyester
PLA	polylactate/ polylactic acid
PP	polypropylene
PHO	polyhydroxyoctanoate
psi	pound (force) per square inch
pH	power of hydrogen
<i>y</i>	predicted response
<i>p</i>	probability value
$Y_{P/X}$	product yield coefficient on biomass
$Y_{P/S}$	product yield coefficient on substrate
β_{ii}	quadratic coefficient
Rep	replication
RSM	response surface methodology
Y	response value
rpm	revolutions per minute
SEM	scanning electron microscope
SD	standard deviation
TISTR	Thailand Institute of Scientific and Technological Research
TEM	transmission electron microscope
3D	three dimensional
UV	ultraviolet
v/v	volume by volume
w/v	weight by volume
w/w	weight by weight